ECLIPSE

2006 Mobile Entertainment Catalogue

FUJITSU TEN

In a class all its own.

Usability

Emphasising the ease of use that so distinguishes ECLIPSE products, the attractive control interface reduces the number of controls, intelligently assigning all operations to a few controls for easier, intuitive operation for any navigation or audio/visual task.

Originality

Offering an unparalleled degree of customisation over audio parameters to optimise the overall system response as well as visual-oriented features, the AVN8826 empowers the user to create the exact sound desired.

Quality

For uncompromised navigation and entertainment performance, the AVN8826 incorporates the Ultima Engine for sophisticated navigation with high-speed graphics processing while the optional DCU105 5.1 ch. Decoder/AV Matrix Unit allows any program source to be enjoyed in surround sound.

Introducing a system that delivers audio, visual and navigation in an elegant all-in-one design.
It integrates easily into any car's interior — there is simply no other product like it.

AVN8826

HDD Navigation System with 7˝ Wide TFT Display and DVD/MS Multi-Source Receiver

ESN WMA MP3 DVD VIDEO DOLBY DIGITAL dts DIGITAL OUT MEMORY STICK MAGICGATE R·D·S TMC

Fitting elegantly into the centre console to enhance a car's interior.

Navigation

- Ultima Engine
- 20GB 1.8˝ HDD
- 7˝ (175mm) wide TFT display with touch control
- over 32,000 map colours
- 334 3D landmarks
- approx. 11,000 landmarks

- Multiple search modes
- Split screen displays
- Map scale from 50m to 500km
- Voice announcements and guidance (10 languages)
- Time zones (Greenwich, Central and East)
- Border guidance

Advanced navigation with outstanding ease of use.

The AN8826 is the culmination of ECLIPSE's advanced mobile technologies that conquer space limitations to offer extraordinary navigation performance. Featuring the **Ultima Engine** for increased speed and navigation-related task processing as well as upgraded navigational features, the AN8826 shows just how much is possible in mobile navigation today.

Audio/Visual

- CD/CD-R/RW, MP3, WMA
- DVD-Video, DVD-R/RW and DVD+R/RW
- Memory Stick Duo
- MOSFET 50W × 4
- 5.1 ch. surround sound (with DCU105)
- Dual colour illumination
- DVD dual play

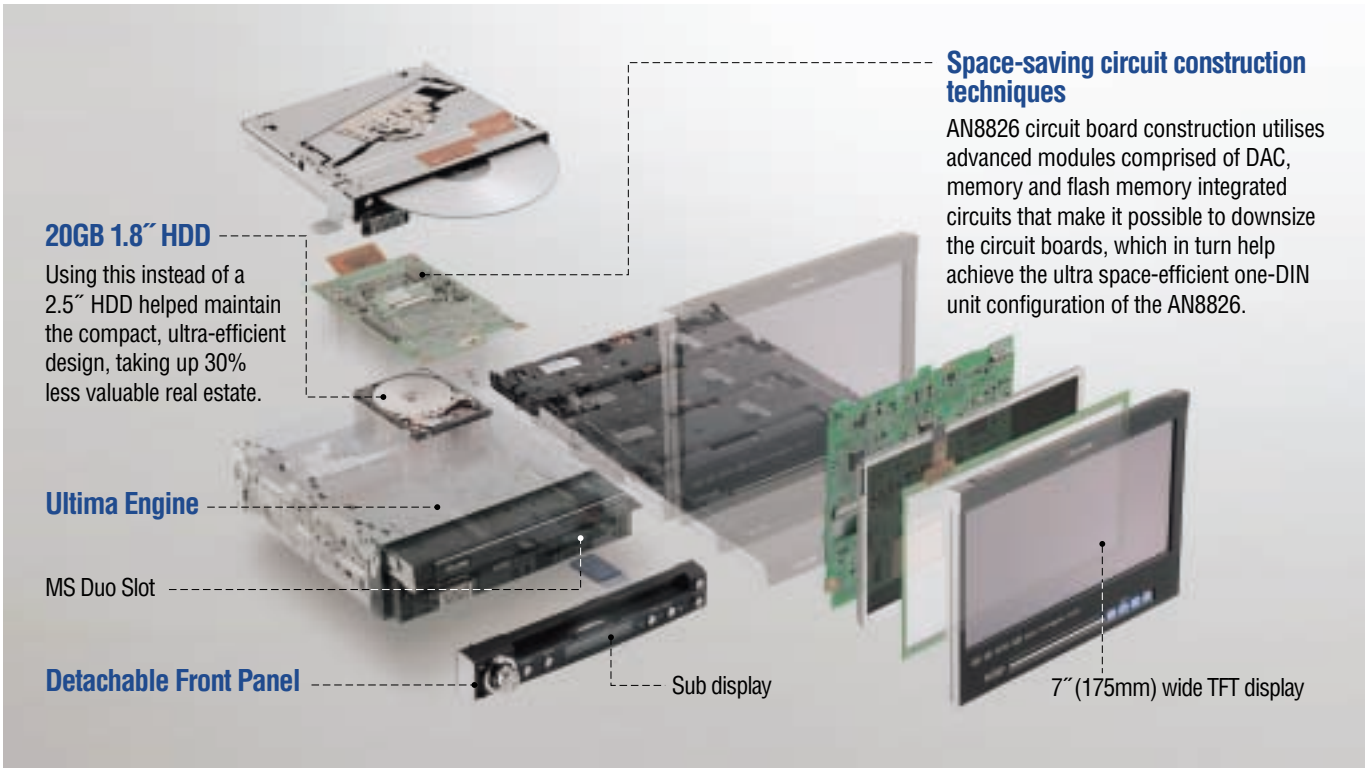
- FM/MW/LW tuner
- Advanced 24-bit ΔΣ DAC
- RDS-TMC (Dynamic Route Guidance)
- High-performance DSP:
  - Parametric equaliser
  - Time alignment
  - Listening Position Selector
- 5V preamp output (with DCU105)
- CD Changer-ready (2 units)

Comprehensive features that enhance any audio/visual entertainment.

Offering **5.1 ch. surround sound (with DCU105)** for surround-encoded program material as well as upmixing two channel material, the AN8826 offers the most from any program source. Utilising **audiophile grade circuits and components**, audio and visual performances are simply stunning.

The technology inside

The challenge was to fit an immense amount of technology into a space-limited one-DIN unit housing. By extensively employing the latest advances in integrated circuit technologies, ECLIPSE was able to achieve an impressive engineering feat of fitting all the technology in. ECLIPSE is the only mobile electronics manufacturer to offer so much in a single, compact enclosure.


20GB 1.8˝ HDD
Using this instead of a 2.5˝ HDD helped maintain the compact, ultra-efficient design, taking up 30% less valuable real estate.
Space-saving circuit construction techniques
AN8826 circuit board construction utilises advanced modules comprised of DAC, memory and flash memory integrated circuits that make it possible to downsize the circuit boards, which in turn help achieve the ultra space-efficient one-DIN unit configuration of the AN8826.
Ultima Engine
MS Duo Slot
Detachable Front Panel
Sub display
7˝ (175mm) wide TFT display

Proximity layout

Important circuit components such as the DAC and MOSFET devices are closely positioned next to the output terminals for the most effective signal transmission and to cancel any potential noise pickup. This adds up to delivering better audio performance.

DAC ➡ Misfits ➡ OUTPUT

The culminating effect of all these efforts allows the AN8826 to be free from noise and provide a performance that impresses.

Design accents

Chrome and silver style highlights

The stylish silver strip accents the pushbuttons on the side while the control knob and other buttons are finished in chrome for an elegant touch of contrast with the black matte finish of the unit.

Understated black matte finish

Adding to the AN8826's stylistic appeal is the black matte finish that complements car interiors and adds a sophisticated, appealing finish.

Dual colour illumination

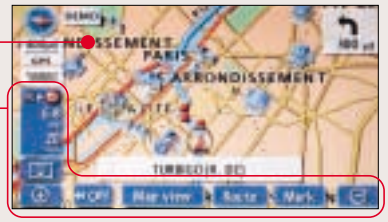
To suit user preferences and car interiors, the switches offer a choice of colour illumination.

Ultima Engine

This computing engine combines navigation and graphics processing integrated chips in one monolithic configuration for accelerated data processing.

Over 32,000 map colours

Screen translucency
On-screen information now "floats" above a map display so it's easier to see and less distracting.



Searching

Offering the most convenient ways to find your destination.

Motorway search

Simplifies highway travel.

Just input the name of a motorway and the entrance/exit you want.

Define search area

Conveniently focuses on a general region for more efficient searching.

All searching starts with selecting the country the destination is in.

Quick access points

5 buttons can be preset to any desired destination for instant recall.

Coordinates search

Searches by latitude and longitude.

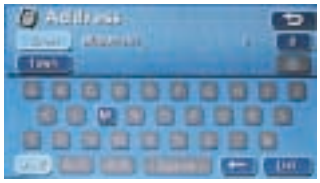
Home search

This always guides the car home, no matter where it is.

Once a home address is registered, it's easy to return from anywhere.

Address search

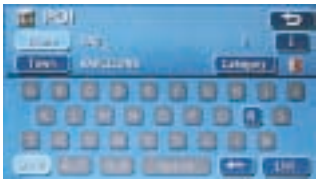
An address is all that is needed.



Inputting a street name and number will initiate a search.

POI search

Convenient presets for general inquiries save time.



For a particular type of location such as a mall, restaurant or other, AVN8826 brings up listings. Touch one and see more details.

POI near

Making it simple with the easiest locations to get to.

Shows all the closest-to-get-to POIs from the car's current location.

Map search

No more wasting time looking for a map.

Another easy method is to directly access a map of the search area and zoom in or out as desired.

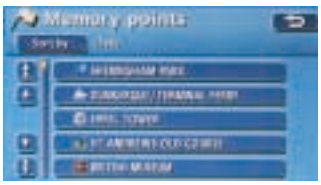
City search

A speed search that can be activated by city or nearby vicinity.

Offers a route to the input city's central area. Up to 5 favourite cities can be conveniently grouped. A 32km vicinity of the city can also be shown.

Memory points

Presets for instantly accessing a location.



100 useful locations are preset for quickly scrolling through and selecting. Favourite locations can have sound tags assigned, even with directivity.

Previous points

Where the car has been.

Conveniently, the last 100 locations can be instantly displayed for selecting.

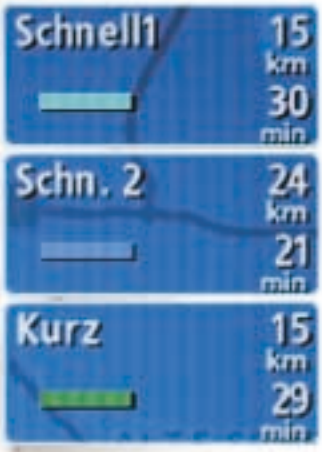
Phone number

Alternately, a telephone number will result in a search.

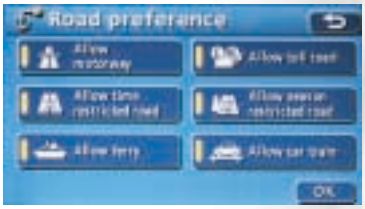
If only the phone number is known, the address corresponding to the telephone number will be shown.

Routing

Always a useful choice of routes for the user to choose from.



Road preference



Preset travel method preferences such as motorways and toll roads are factored into the routes the the user can choose from.

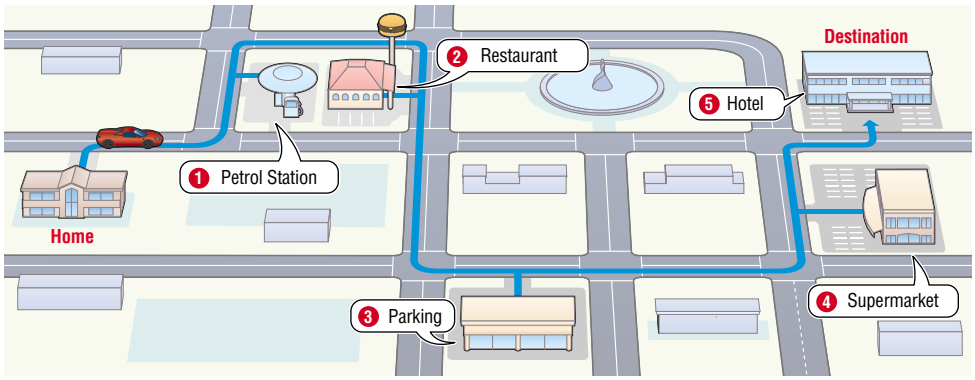
3 routes

Instantly sets three routes no matter the destination. For any destination, a choice of Quick 1, Quick 2 and Short routes to suit personal preferences adds flexibility.

Enroute stopping points

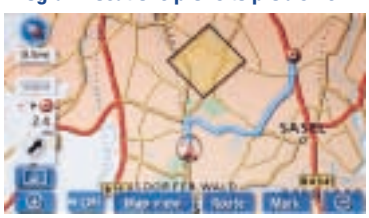
Choose when and where to take breaks.

On a chosen route, stopping at a supermarket, finding some petrol and parking before the final destination or any other of 5 locations can be programmed in to the route.



Detours

Program locations prone to problems.



Now it is easy to avoid up to 10 chronically congested and problem areas. Simply select an onscreen area, drag to resize it up or down as desired and the best detours are presented.

Route preview

Any selected route can be conveniently previewed in its entirety to get familiarised with it.

Assistance

Comprehensive help features make driving enjoyable.

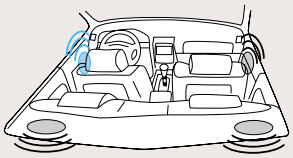
Voice announcements and guidance

No more missed turns.

For stress-free driving, the AVN8826 advises upcoming turns and will continue to warn as the turn approaches. Other guidance for curves and driving lanes will also be announced.

Language Selection

For greater ease of use, the AVN8826 can interact with the user in 10 languages. Select the language as desired.



Music cuts off at the front left speaker and the navigation voice message is heard.

Intersection zooming

Display zooms up just when needed.

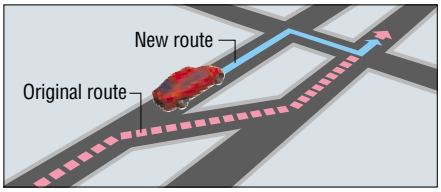
Display automatically splits as an intersection is approached.

When approaching an intersection where a turn is required, the display automatically splits into two screens so as to also show a more closeup view with details such as landmarks for easier navigation.

Auto rerouting

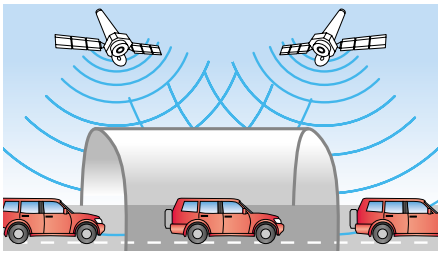
Instant response ensures no wasted time.

Wrong turns and missed streets are no longer a problem because the AVN8826 instantly reroutes to put the user right back on track.



Map and positional updating

Constant tracking maintains accurate position.



The AVN8826 constantly tracks the car even where it cannot receive satellite signals. A gyro sensor and auto speed pulse help correlate the car's travel with the onscreen map so that car's position is always accurate.

Radio Data System (RDS)

Adding basic data and text services to FM broadcasts, RDS-enabled tuners provide useful assistance while driving. RDS services are available through most of Europe.

- Programme service (PS)
- Alternative frequency (AF)
- Traffic announcement (TA/TP)
- Regional links (Reg On/Off)
- Enhanced other net's information (EON)
- Programme type (PTY)

RDS-TMC

Up-to-the-minute traffic information.

RDS-TMC is an enhanced RDS service that offers valuable driving assistance, delivering real-time traffic information that enables **dynamic route guidance**. Any traffic problems that occur will be seen on the display in realtime, visually marked with symbols on the display map. As the traffic data is input directly into the AVN8826's navigation system, it is easy to select alternative routes that avoid the traffic problem altogether.

Motorway assistance

Entrance displays

Guidance is provided when approaching a motorway entrance, with the entrance name also displayed.

Motorway interchanges

Untangling the most complex interchanges is easy with the the 3D views and correct lane views the AVN8826 displays.

Exit displays

No more worries about missing the right exit because it is shown in a 3D view along with name and other useful information.

Special display features

Making navigation easier than ever to use.

The navigational database contains a substantial number of POIs that assist finding various locations. Petrol stations and restaurants are only some of the useful categories of POIs. Each category is also assigned a distinctive icon. For more information about a specific icon, simply press it to display pertinent information such as telephone number, address and so forth.

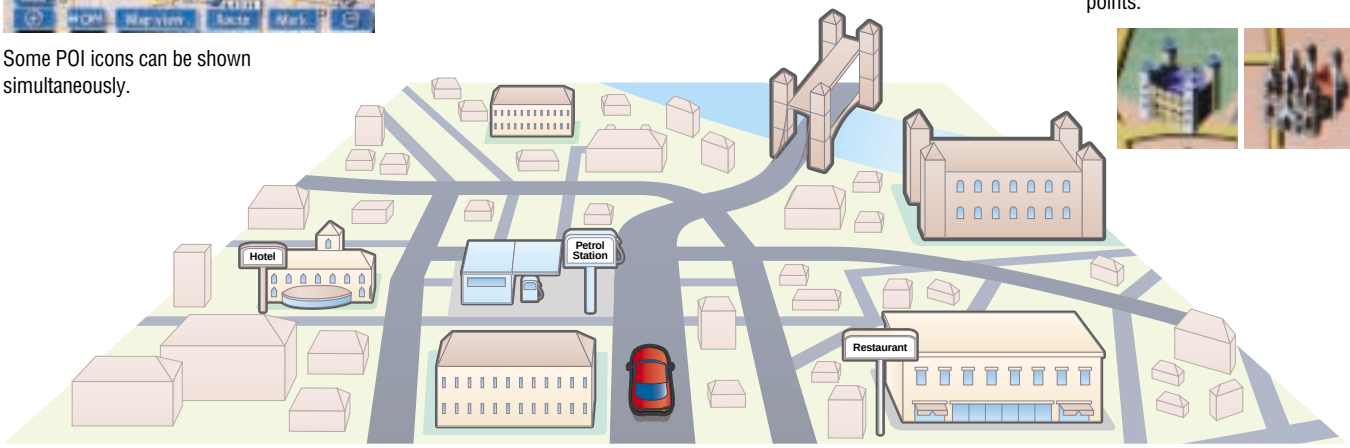
POI displays

Some POI icons can be shown simultaneously.

POI genres simultaneously onscreen: 5

3D landmark icons

For more ease when navigating, the AVN8826 provides 334 3D icons that are highly visible on the display, allowing the driver to quickly focus in on prominent points.

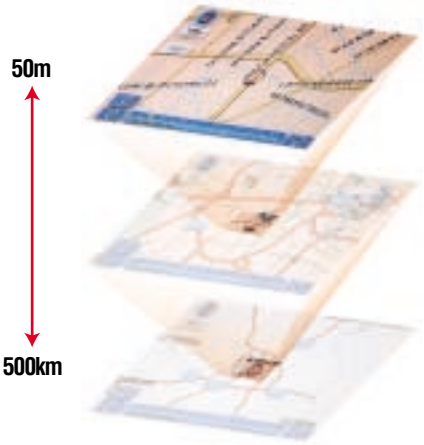


Driving distance and arrival time displays

Useful information regarding distance to the destination as well as the estimated time of arrival can be seen.

Versatile zooming

Map scale can be quickly controlled by shifting magnification values. Seamless zooming is broader, covering 50m to 500km for maximum flexibility.



Split screen function

This convenient function can be activated as desired to combine zoom in and out displays, maps of different scales and other combinations of various modes as desired.

Smooth multi-directional scrolling

Just a light fingertip touch is all that is needed on the touch control screen for the map to scroll by smoothly and accurately following the fingertip.

Time zones

When travelling across time zones, the AVN8826 automatically makes an adjustment for that time zone.

Mapping coverage

The AVN8826 incorporates a comprehensive navigational database for Europe which includes: Andorra, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, United Kingdom, Vatican City

Transport yourself into a theatre environment.

DCU105 Audio Video Matrix

ECLIPSE designed the powerful Audio Video Matrix unit that can be used with various ECLIPSE products. Because it is a dedicated unit, the addition of the DCU105 elevates the performance of unit it is connected to significantly for audio as well as video. It offers system control and response that would ordinarily require technicians and test equipment to achieve. It also offers many advanced system expansion choices for audio as well as video.

- Dolby Digital 5.1 ch.
- dts 5.1 ch.
- Dolby Pro Logic II
- Time Alignment Pro
- Crossover Pro
- Parametric EQ Pro
- AV Matrix Selector
- 5V preamp output
- MOSFET 50W × 4

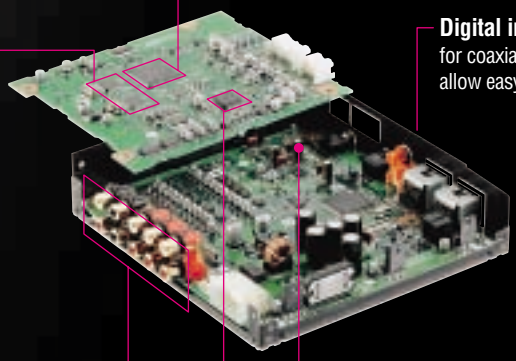
Dimensions (W × H × D)
175 × 36.5 × 160mm

DCU105

5.1 ch. Decoder/AV Matrix Unit

Multi-function 24-bit Dolby decoder
The multi-function 24-bit Dolby decoder incorporates Dolby Digital 5.1ch. and dts 5.1ch. functions as well as Dolby Pro Logic II.

24-bit DSP for audio processing (Parametric EQ, Time Alignment, Crossover, etc.) handles all audio tasks and offers comprehensive parameters for customising audio to user preferences.

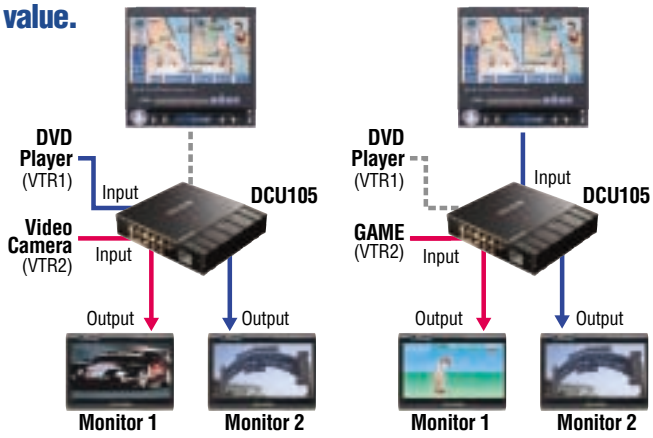


Digital inputs
for coaxial and optical signals allow easy interfacing.

Gold-plated RCA pin connectors — **AV Matrix IC** — **Advanced 24-bit DAC**

Versatility increases entertainment value.

When the AVN8826 is used with the DCU105, different program sources can be viewed simultaneously for **dual zone operation**. With navigation on in front, DVD-Video can be playing for one rear passenger while another can watch video playback from a video camera or play a game. The same DVD-Video can be enjoyed in the front and rear with the other passenger enjoying another program source.



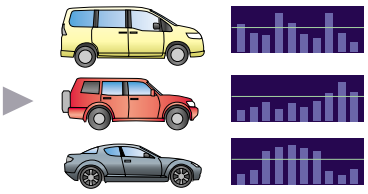
High-end performance comparable to dedicated components.

AVN8826 + DCU105 — Precision tonal contouring for accurate sound.

Parametric EQ Pro

The professional EQ method for tuning a system's frequency response because of its absolute versatility and precision control. It smoothes out system response, eliminating troublesome frequency peaks and dips.

Test microphone picks up the system's frequency response.



Each vehicle type has its own acoustic environment. System frequency response is precisely adjusted manually for an ideal flat frequency response.

To suit preferences and music genres, up to five sets of user-configured PEQ settings can be preset and stored in memory for instant recall.

Note: test microphone not supplied with the AVN8826.
Please contact your ECLIPSE dealer.

AVN8826

Normal Mode
Perform easy audio customisation using the AVN8826 by itself.

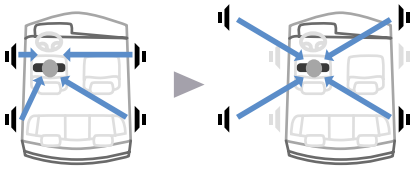
7-band Parametric EQ

Simpler parametric equalisation function can adjust the "Q," i.e. bandwidth, of each of the 7 centre frequencies from wide to narrow in 3 steps.

AVN8826 + DCU105 — Optimising for the best audio performance.

Time Alignment Pro

If sound from all the speakers arrives at the ears simultaneously, it is more natural sounding. Time delay can be adjusted to achieve identical arrival times.



Sound from speakers in different locations arrive at the listener's ears at all different times. Speakers are electronically processed with varying time delays to ensure all the sound is heard at the same time no matter how the speakers are positioned.

Front 1-way example

Fullrange speakers can be time-aligned automatically with the AUTO setting. One single push is all that's needed for the whole process.

Front 3-way example

Complex to perform manually, optimal delay settings can be adjusted automatically for the various speakers in the system for true time alignment. For experienced users, more tweaking is possible in the manual mode.

AVN8826

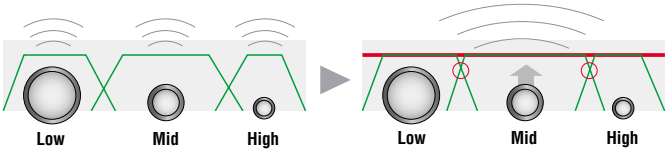
Time Alignment

A simpler time alignment performed by selecting the car type and speaker positions, then adjusting each speaker level. Delay parameters are then adjusted for a time-aligned response.

AVN8826 + DCU105 — Wide-bandwidth, perfectly balanced sound.

Crossover Pro

Multiple speakers are necessary for wide bandwidth sound since each speaker covers a limited frequency range. A speaker must smoothly 'crossover' to the next speaker, making the overall system sound as if it was coming from a single source.



Discontinuities between speaker units can be heard.

Integrating the sound from different speakers into an organic, whole sound that is more natural and lifelike.

Adjusting a crossover point's frequency, rolloff using "slopes" from bandpass to 6/12/18/24dB/octave and level settings.

Enables optimal listening.

Listening Position Selector

This function compensates for any seating position, optimising system response for that position as if it was in the perfect sweet spot for listening as in a home audio system.

For adjusting the overall system-wide balance.

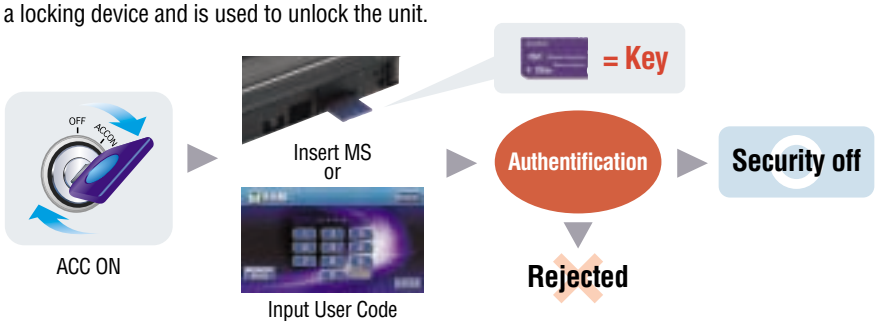
Fader and Balance

Easy directional controls and a visual indicator make it easy to set system-wide balance in any direction to suit user preferences.

Twin Security System

ESN

With the engine switched off, ESN can be activated to deter AVN8826 tampering and flashes as a deterrent warning ESN is operating. A Memory Stick Duo can be designated to function as a locking device and is used to unlock the unit.



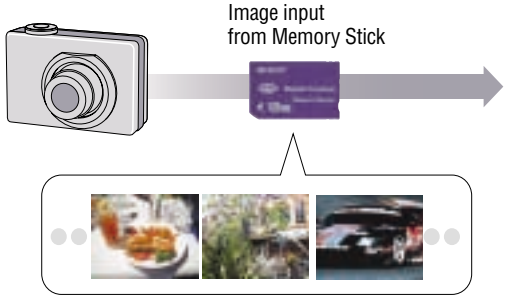
Detachable front panel

The front panel detaches and is compact enough to be portable, allowing users another level of security and deterrence.

Other customisation features

Pic-Clip

This function allows changing the default image as well as selecting custom images.



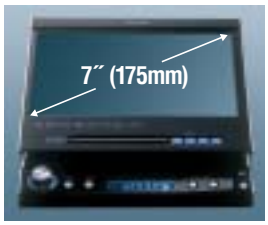
Direct image data reading from DCIM folder.

Full-featured entertainment technology that satisfies.

Whatever you choose to make driving more enjoyable, music or video, the AVN8826 offers the specialised functions and features that make sure you get the best performance.

Versatile 7˝ (175mm) wide display

Responsive to a fingertip touch, the sharp TFT display provides high resolution viewing optimised for navigation as well as DVD-Video. For entertainment viewing, the aspect ratio can be switched to any of four settings as desired.



DVD/CD player

ECLIPSE's DVD/CD-compatible mechanism is optimised for the mobile environment, featuring rugged construction, extensive damping and a large memory buffer along with precision tracking. With the addition of the DCU105 AV Matrix, DVD enjoyment becomes genuine theatre quality with 5.1 ch surround sound. Even non-multichannel programs and CDs can be upmixed for surround sound.

DVD dual play

While radio broadcasting or music from connected external sources such as a CD changer or memory stick can be enjoyed on the AVN8826 with sound from all speakers, the AVN8826 can also be playing a DVD-Video for rear seat passengers who can listen to it through headphones connected to the rear displays.

MP3 and WMA files

All the convenience of digital music files can be enjoyed with the AVN8826. A Multi-Harmonizer function makes sure these files always sound their best by restoring harmonic data lost during the encoding process.

RDS Tuner

ECLIPSE's long-proven tuner section provides outstanding performance for terrestrial broadcasting sources with excellent reception even in problem areas.

Rear monitor-ready

The AVN8826 can handle the demands of providing different program material so that adding rear monitors becomes a worthwhile option for offering more entertainment for all persons in the vehicle.

Options that increase AVN8826 enjoyment.

Create a mobile music library.

CH3083
8-Disc CD Changer with Magazine Unit

CD Changer-ready

Functioning as an immense mobile jukebox with storage for 8 CDs, the CH3083 is ideal for increasing music content as it is also compatible with CD-R/RW discs.

Take the hassle out of backing up.

BEC105
Rear View Camera

Rear view camera-ready

The BEC105 optional rear view camera can be connected to the AVN8826 to facilitate parking.

More convenience at hand.

RMC105
Wireless Remote

Remote control-ready

Optional new ergonomic design remote enhances operation.

Features List

Media	
HDD	1.8″ 20GB
DVD	○
CD	○*1
Memory Stick Duo	○*2
Navigation	
Navi Device	
HDD Navigation	○
Ultima Engine	○
Displaying	
Display	7″(175mm) EGA
Map colours	32,768 colours
Split screen	○
Street name	○
Point-of-Interest (POI)	○
Landmark 2D/3D	10,767/334 points
Operation	
Touch-Panel control	○
Searching	
Address search	○
POI search	○
POI near search	○
Map search	○
Memory search	100 points
Previous search	100 points
Intersection search	○
Motorway search (ENTER/EXIT)	○
Coordinates search	○
Telephone number search	○
Home search	○
Quick access point search	5 points
Routing	
3 routes information	○
Detours	10 areas
Enroute stopping points	5 points
Route preview	○
Assistance	
Voice announcement	10 languages
Voice announce switch L/R	○
Voice announce volume control	8 steps
Intersection zooming	○
Motorway guidance	○
Auto rerouting	○
Estimated arrival time	○
RDS-TMC	○
Entertainment	
Preset wallpaper (still images/moving images)	5 patterns/5 patterns
Pic-CLIP	100 images*3
Welcome screen	○
Security	
ECLIPSE Security Network	○
Detachable front panel	○
Other	
Select User	3 persons
Telephone mute	○

AUDIO	AVN8826 only	DCU105 connected	
		Front 1-way system	Front 3-way system
DVD			
DVD-Video	○ (Single/Dual Layer)		
DVD-R/RW, DVD+R/RW *4	○ (Single/Dual Layer)		
Dolby Digital 5.1ch.	—	○	
dts 5.1ch.	—	○	
Dolby Pro Logic II	—	○	
CD			
CD	○		
CD-R/RW	○		
MP3	○		
WMA	○		
MS			
ATRAC3	○ (Magic Gate Memory Stick Duo)		
Audio function			
Time Alignment	Car type: 6 types, Speaker position: Tweeter Rear SP	Front (L/R), Rear (L/R), Centre, Subwoofer	F-Hi (L/R), F-Mid (L/R), F-ML (L/R), R (L/R), Centre, Subwoofer
Parametric EQ	7 bands	F/R/C: independent 5 bands, SW: 1 band	
Crossover	—	F (HPF)/R (HPF)/ C (HPF)/SW (LPF)	F-Hi (HPF), F-Mid (HPF/LPF), F-ML (HPF/LPF), R (HPF), SW (LPF)
Multi-Harmonizer	MP3/WMA/ATRAC3		
Listening Position selector	FR, FL, F, R, OFF		
Non Fader Level/Phase control	—	○	
Audio device			
MOSFET amplifier	50 W × 4		
Advanced 24-Bit ΔΣ DAC	○		
Pre Amp Output	—	Front/Rear/Centre/Subwoofer, 5V	
AV Output	1 pair	2 pairs	
AV Input	1 pair	2 pairs	
Digital Output (Coaxial)	○		
Digital Input (Coaxial)	—	○	
Digital Input (Optical)	—	○	
ANALOGUE RADIO TUNER			
FM	FM1: 6, FM2: 6		
MW/LW	MW: 6/LW: 6		
RDS Tuner	AF, REG, TP, TA, PS, PTY, EON		
OPTIONAL			
CD Changer-ready	2 (daisy chain)		
Rear View Camera-ready	○		
Rear Monitor Input	1	2	
External device Input	1	2	

*1 Ripping not available
*2 Memory Stick Duo is sold separately and compatible with 128MB or under.
*3 100 images can be stored. (each image should be below 2 MB in MS Duo. Only JPEG files are available
*4 Please refer to Note and Precautions.

Specifications

GENERAL	
Power output	50 W × 4 (MAX)
RMS power output (1 kHz, 1%THD 4Ω)	13W × 4
Dimensions (W × H × D)	180 × 50 × 165mm
Weight	2.3 kg
DISPLAY	
Display	7″(175mm) wide (16:9), low-glare panel
Resolution	336,960 dots (480 × 234 × 3)
Screen aspect ratio	4 types
FM TUNER	
Frequency range	87.5 — 108.0MHz (50kHz step)
Usable sensitivity	19dBf (98.1MHz)
MW TUNER	
Frequency range	522 — 1,611kHz (9kHz step)
Usable sensitivity	29μV (999kHz)

LW TUNER	
Frequency range	153 — 279kHz (3kHz step)
Usable sensitivity	89μV (216kHz)
CD SECTION	
Frequency response	20 — 20,000Hz ±3dB
Total harmonic distortion	0.04% (0 dB 1kHz)
MS SECTION	
Frequency response	20 — 20,000Hz ±3dB
Total harmonic distortion	0.04% (0 dB 1kHz)
EQUALISER SECTION	
Parametric equaliser	63 Hz — 16kHz (25 points) ±10dB
HDD SECTION	
Operating temperature range	–10 — 65°C
Storage temperature range	–40 — 85°C

Honouring the music. Dedicated performers that please music lovers.

ECLIPSE CD Receivers are fully self-contained with 4-channel power amplification and designed to provide the maximum performance from optical disc sources. The series is constantly being refined with new technologies and important new features.

CD Receivers

Offering all that is required to communicate music in the best way. Overengineered construction, premium components and advanced digital and analogue circuits work in harmony to produce superb sound.

Both the CD8445E and CD5425E are exceptional head units that deliver the best possible reproduction from today's popular music program formats — CD, CD-R/RW, and MP3, with the CD8445E also compatible with WMA files. Either model will satisfy discerning music lovers.

8V PRE-OUT · SRS Circle Surround II · ESN · WMA · MP3 · Compact Disc Digital Audio Text · Memory Stick · CD R·D·S

CD8445E

MOSFET 50W × 4 (max.)

Excellent Sound Quality CD/Memory Stick Receiver with MP3/WMA

- CD, CD-R/RW, WMA and MP3
- Circle Surround II (pro mode off)
- Motion Picture
- Memory Stick-ready
- FM/MW/LW tuner
- RDS tuner
- MOSFET 50W × 4ch.
- 5-pattern illumination
- Detachable Front Panel

- 2-mode Sound Control DSP
- Parametric EQ:
  - 10-band (pro mode on)
  - 7-band (pro mode off)
- Multi-Harmonizer
- Time Alignment
- Crossover
- Listening Position Selector
- Source Volume Control
- Advanced 24-bit ΔΣ DAC
- High 8V preamp output with low 55Ω impedance
- 8-step full dot VF display
- MS/CD ESN security
- 3 prs. pre outputs
- Aux input
- Remote control

5V PRE-OUT · ESN · MP3 · Compact Disc Digital Audio Text · CD R·D·S

CD5425E

MOSFET 50W × 4 (max.)

Superb Sound Quality CD Receiver with MP3

- CD, CD-R/RW and MP3
- FM/MW/LW tuner
- RDS tuner
- MOSFET 50W × 4ch.
- Detachable Front Panel

- 1-bit DAC
- 3-band Graphic EQ
- Crossover
- Source Volume Control
- 5V preamp output with low 55Ω impedance
- Bright and clear 3-color LCD display
- ESN security
- 3 prs. pre outputs
- Aux input-ready
- Remote control-ready

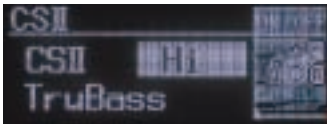
Audio Features

The new CD Receiver line delivers outstanding audio performance across the board for each model.

Circle Surround II

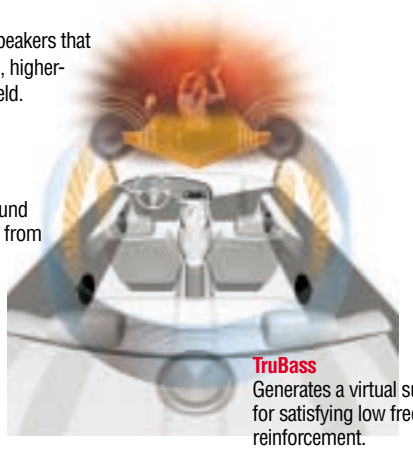
SRS Circle Surround II

Circle Surround II adds three important functions that will significantly increase in-car music listening enjoyment. **Circle Surround** will upmix any audio program material such as CDs, MP3s, WMA files and FM/MW/LW broadcasts for surround sound with just four speakers. **Focus** works to raise the apparent soundfield so that sound is perceived as coming from the front, and at ear level, instead of from the sides and lower as many speakers are positioned in cars. **TruBass** makes use of psychoacoustic principles and human hearing characteristics so that extended low frequencies are perceived, even from small speakers.



Focus
Generates virtual speakers that create a front-firing, higher-positioned soundfield.

Circle Surround
Multichannel surround sound is generated from any audio source.



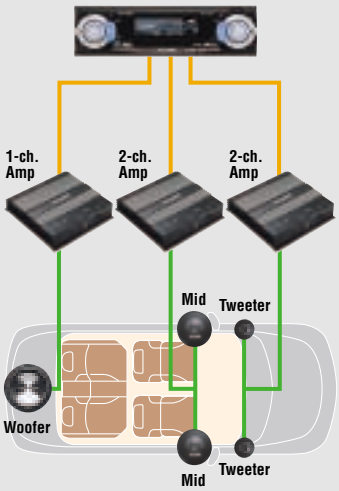
TruBass
Generates a virtual subwoofer for satisfying low frequency reinforcement.

Audio customise

The CD8445E offers the most comprehensive customisation functions for a user to optimise an audio system for the specific car it is installed in. In addition, customisation can be performed in two modes: **Professional Mode** and **Easy Mode**. **Professional Mode** offers a degree of user customisation that would normally require test equipment and qualified personnel to perform, while **Easy Mode** intelligently groups related parameters to simplify adjustment.

Pro Mode on

For optimising a 3-way multi speaker system that comprises 6 independent speakers.

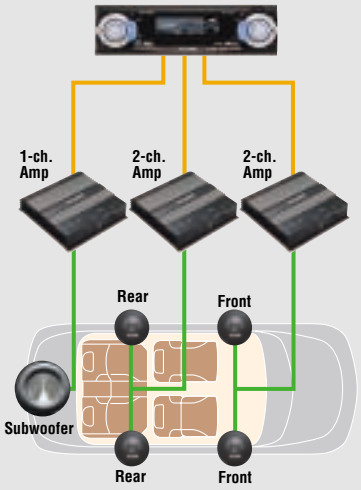


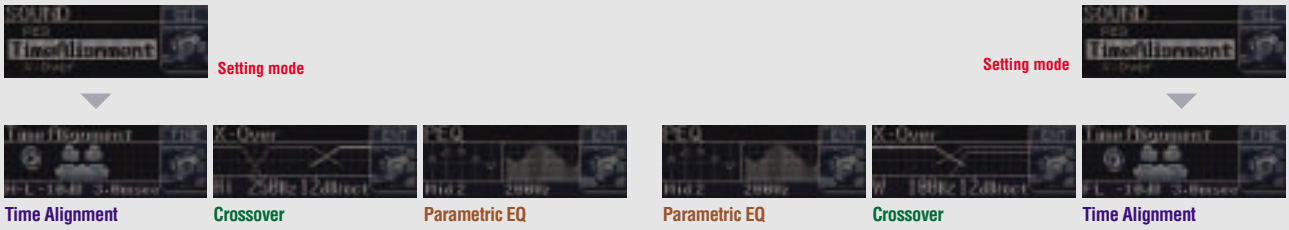
Time Alignment creates better imaging and a more natural system sound by making sure the sounds from all the speakers arrive at the listener's ears simultaneously. The delay time and level parameters for each speaker can be easily set individually for the most accurate results.

Crossover adjustment controls the frequency where a speaker's response crosses over to the next speaker's response for a smooth, full bandwidth sound without any speaker discontinuities, making for a more pleasing overall system response. Speaker response cutoff frequencies and rolloff slopes can be optimally set.

Parametric EQ controls frequency peaks and dips that compromise absolute sound quality in most cars. PEQ provides the precise frequency control to defeat frequency anomalies for a satisfying, well-balanced sound. Each channel has 5 frequency bands for precision adjustment.

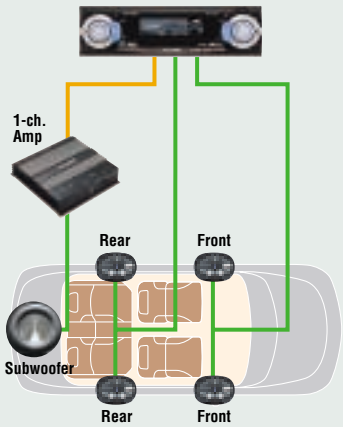
For optimising a 4-speaker system plus subwoofer system.



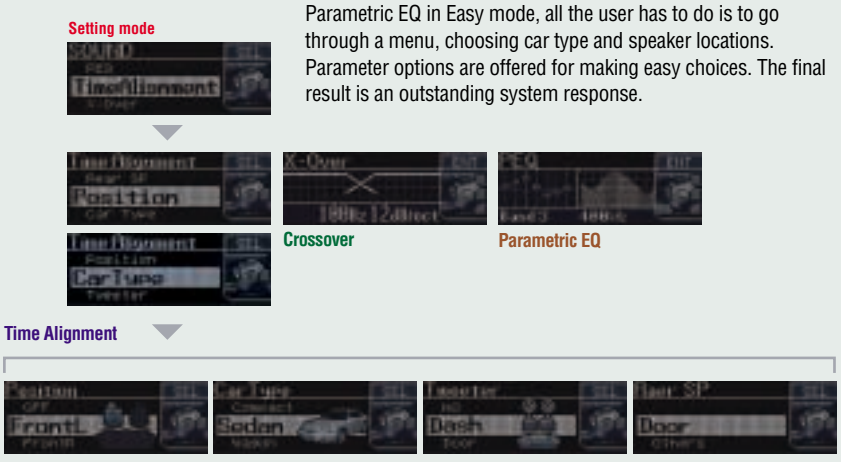


Pro Mode off

For optimising system response for a 4-speaker plus subwoofer system the easy way, simple to follow menus are presented.



Whether optimising the system for Time Alignment, Crossover or Parametric EQ in Easy mode, all the user has to do is to go through a menu, choosing car type and speaker locations. Parameter options are offered for making easy choices. The final result is an outstanding system response.



High-voltage preamp output

ECLIPSE audio philosophy emphasises high performance so both the CD8445E and CD5425E are designed to deliver ideal electrical characteristics. Doing so allows downstream amplifiers to be driven optimally to deliver the best performance with minimal noise and distortion.
CD8445E: 8V at 55Ω, CD5425E: 5V at 55Ω

3-Band EQ

This feature was designed to allow a user to easily adjust the tonal characteristics of program material to suit listening preferences.
CD5425E

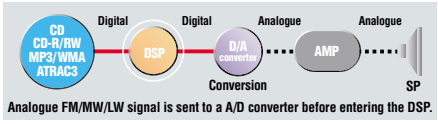
Multi-Harmonizer
Ideal for obtaining the best sound from MP3, WMA and ATRAC3 music files, this function can be activated to restore the harmonic data that is lost when digital music files are encoded.
CD8445E

MOSFET 50W × 4 power amplification

Natural-sounding and dynamic, MOSFETs are used in both CD Receivers because they draw less current and also require less power.

Advanced 24-bit ΔΣ DAC

All signals remain strictly in the digital domain till they are converted to analogue to drive the power amplification section, minimising distortion and improving S/N ratios.
CD8455E



Analogue FM/MW/LW signal is sent to a A/D converter before entering the DSP.

Other Features

5-pattern illumination

Allows the user to select a colour that best complements the car's interior or just to suit user preferences. **CD8445E**

Blue+Red

Blue+Amber

Blue+Green

All Green

All Red

Vary the CD Receiver's illumination colour to enhance the car's interior appearance.

Sharp displays

The CD8445E has an 8-step full dot Vacuum Fluorescent (VF) display for extremely legible alphanumeric characters and a separate Bright & Dimmer control. The CD5425E sports an LCD display with 3 colours and large, easy-to-see characters with adjustable brightness.

SVC (Source Volume Control)

SVC acts as a master volume control that ensures the volume settings for all program sources stay the same so there are no annoying volume changes when switching sources.

Motion Picture

The CD8445E can be customised to show a personalised motion picture on the display. Motion pictures can be downloaded or original ones can be used with the Cutting Board application to create a sequence of up to 10 sec. Up to 100 images can be used in sequence.
CD8445E

Twin security system

ESN

Featured in both models, ECLIPSE's proven theft-deterrent feature works with a user-designated CD or Memory Stick (CD8445E only) as a key device to lock the system and prevent activation in the case of removal or unauthorised access.

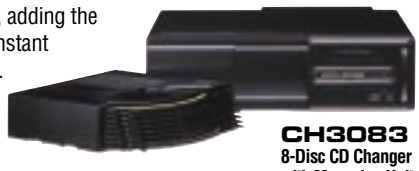
Detachable Front Panel

The front panel detaches and is compact, allowing users another level of security and deterrence.

Options

CD Changer-ready

With 8-CD capability, adding the CH3083 creates an instant mobile music library.


CH3083
8-Disc CD Changer with Magazine Unit

Remote control-ready

Optional unit for more convenient operation.

RMC105
Wireless Remote
Optional for: CD5425E

AUX105
AUX Cord
Dedicated cable for connecting an external portable player. CD5425E AUX IN.

Feature List

	CD8445E		CD5425E
CONTROL			
Remote Control	●		Optional
CD Changer Control	●		●
CD-R/CD-RW	●		●
WMA	●		—
MP3	●		●
Digital Servo System (DSS)	●		●
TUNER			
FM/MW/LW	●		●
RDS Tuner	AF, REG, TP, TA, PS, PTY, EON		
AUDIO			
Output Voltage and Impedance	8V/55Ω		5V/55Ω
MOSFET Amplifier	●		●
Advanced 24-Bit ΔΣ DAC	●		—
Source Volume Control (SVC)	●		●
Sound Control Mode	Professional		—
	On	Off	
Circle Surround II	—	●	—
Bass/Mid/Treble Control	●	—	●
Time Alignment	●	●	—
Parametric EQ	10-band	7-band	—
Multi-Harmonizer (MP3/WMA/ATRAC3)	●	●	—
Listening Position Selector	—	●	—
Crossover	●	●	●
Non Fader Level / Phase Control	●	●	●
Frequency Response Analysis	●	●	—
3-band Graphic EQ	—		●
Dual Pre Outputs	●		●
Non-Fader Pre Outputs	●		●
AUX In	●		Optional
GENERAL			
5-pattern illumination	●		—
Dimmer Control	●		—
ATRAC3 Decoder	●		—
ESN security	MS/CD		CD
Detachable Front panel	●		●
Display	8-step VF		LCD
Full Face Tilt	●		●
E-LAN data link system	●		●
Telephone mute	●		●

Specifications

14.4V Power Supply		CD8445E	CD5425E
Max. Power Output		50W × 4	
RMS Power Output		14W × 4 (20 — 20,000Hz, 1% THD, 4Ω)	
Preamp Output and Impedance		8V(0dB)/55Ω	5V(0dB)/55Ω
Tone Control	Bass/Mid/Treble	±12dB at 80Hz/±12dB at 630Hz/±12dB at 10kHz	
	Loudness	+10dB at 100Hz/+6.5dB at 10kHz	
FM	Frequency Range	87.5 — 108.0 MHz (50kHz step)	
	Usable Sensitivity	13dBf	
	50dB Quieting Sensitivity	14dBf	
	Frequency Response	30 — 15,000Hz	
	Stereo Separation	38dB (1kHz)	
MW	Frequency Range	522 — 1,611kHz (9kHz step)	
	Usable Sensitivity	20μV	
LW	Frequency Range	153 — 279kHz (3kHz step)	
	Usable Sensitivity	30μV (216kHz)	
CD	Frequency Response	20 Hz — 20,000Hz	
	S/N Ratio (A-weighted)	100dB	95dB
	Total Harmonic Distortion	0.008%	
	Channel Separation	85dB	80dB
Memory Stick	Frequency Response	20 — 20,000Hz	—
	S/N Ratio (A-weighted)	100dB	—
	Total Harmonic Distortion	0.008%	—
Dimensions (W × H × D)		178 × 50 × 155mm	

Notes and Precautions

Product safety notice
- To ensure the safe operation of ECLIPSE products, please read the owner's manuals carefully prior to using.
- ECLIPSE is not responsible for any accident or damage due to improper installation, connections or products modified in any way.

Warning
- All products are intended for DC 12-Volt operation in negative grounded vehicles only. Never use them in 24-Volt vehicles such as heavy trucks or diesel cars with cold-region specification, aircraft or marine environments unless specifically rated to handle these conditions.
- Do not adjust controls while driving. To adjust the controls, stop the car in a safe location.

Caution
- Installation of products requires experience and knowledge. Ask your ECLIPSE retailer for proper installation.
- ECLIPSE cannot guarantee that every product it manufactures will be able to be installed in every vehicle model or make. To be sure, please consult your ECLIPSE retailer.
- In some cases due to installation-related considerations, additional connecting cables may need to be purchased for an ECLIPSE product.
- The rear view camera is a parking aid. It must be used only to supplement your vehicle's side view and rearview mirrors. It is not a substitute for mirrors and careful driving.
- Do not remove the HDD from the head unit. ECLIPSE is not responsible for any loss of data, damage or malfunction to the disk drive mechanism resulting from unauthorised removal or tampering with the HDD.
- Please be sure to follow instructions provided in the installation manual for correct procedures as incorrect installation may affect driving-related operation and/or airbag operation.
- Please make sure only the official parts supplied with the unit are used. Do not substitute other parts as it may affect operation or compromise unit build integrity.
- Optimal MP3 and WMA file reproduction quality depends greatly on the original encoding process. Depending on the original encoding, files may sometimes not playback properly.
- The ECLIPSE navigation system requires its dedicated database for optimal performance. Do not insert other database DVDs that may cause the unit to malfunction or not respond.

General
- Product design and specifications are subject to change without prior notice or obligation as ECLIPSE reserves the right to constantly seek to improve its products.
- Due to characteristics and properties of various photography and printing processes, the colour(s) of the actual product may slightly differ from those shown on these pages.
- Some screen images shown are simulated.

Licensing and Trademarks
- "Dolby", "Pro Logic" and the double D symbol ◫ are trademarks of Dolby Laboratories and the Dolby Laboratories Licensing Corporation.
- "dts" and "dts Digital Out" is a trademark of Digital Theater System, Inc.
- Circle Surround II and the SRS logo are trademarks or registered trademarks of SRS Labs, Inc.
- TMC is a registered trademark of Grundig Aktiengesellschaft.
- Memory Stick is a registered trademark of Sony Corp.
- Magic Gate is a registered trademark of Sony Corp.

Others
- Some recent audio discs may resemble conventional music CDs but are technically not Compact Discs (CD Red Book format) because of the copy protection technology employed. ECLIPSE cannot guarantee operation and performance if these discs are used.
- DVD-R/RW and DVD+R/RW playback is possible only for discs formatted for video mode.
- VR (Video Recording) mode-recorded discs and discs not finalised will not play in the unit.
- Some PC-authored discs may not play due to software application settings during authoring.
- DVD-R/RW, DVD+R/RW and CD-R/RW playback quality may be affected by disk surface condition and disc format initialisation process.
- DVD-R/RW, DVD+R/RW, CD and CD-R/RW discs may not operate perfectly on unit due to disc imperfections.
- DVD-R/RW, DVD+R/RW, CD and CD-R/RW disc performance may suffer if a disc exhibits excessive wear, dirt and scratching
- ATRAC3 is an efficient compression codec for digital music files, allowing files to take up just 1/10 their uncompressed size without degrading audio quality.
- Playback of song data is only possible on Magic Gate-compatible memory stick devices.
- Memory Sticks up to 128MB can be used. Initialisation must be executed with Windows 2000 or later.
- ECLIPSE is not responsible for any data loss on a Memory Stick or HDD due to unit failure or malfunction.

Operation notes
- DVD-Video compatible units are only compatible with NTSC/PAL standards and Region-2 DVD-Video discs.
- DVD-Video is disabled when the vehicle is in motion. Inserting a DVD-Video will only allow the audio to be heard.
- The Global Positioning System or GPS was developed in the United States. It is a system that pinpoints a current position making use precisely of radio waves transmitted to earth from 3 or 4 GPS satellites.
- GPS data can sometimes be unavailable due to circumstances such as:
- Interrupted GPS satellite radio waves because of geographical interference factors such as buildings, tunnels, elevated roads and similar conditions.
- Unsatisfactory reception due to objects being on or in the near vicinity of the GPS antenna.
- Interrupted transmission service may sometimes result from periodic maintenance or upgrades being performed by the US-based GPS tracking control system.
- Transmission can be interrupted or degraded when a digital cellular operating on a 1.5GHz frequency rate is being used in the vicinity of the GPS-enabled unit.

AVN-specific
- Do not follow a navigation route if it could place you in an illegal, unsafe, or dangerous situation.
- Navigation controls cannot be operated in a moving vehicle.
- Do not watch moving images on a product display while driving as doing so may lead to an accident resulting in serious injury or death.

FUJITSU TEN LIMITED
Kontakt: FUJITSU TEN (EUROPE) GMBH
Mündelheimer Weg 39. D-40472 Düsseldorf
Tel: +49 (0) 211 4727-05
Fax: +49 (0) 211 4727-500

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